

Supplement to “Isolating flow-dependent uncertainty in ensemble reanalysis data and its relation to Euro-Atlantic weather regimes and warm conveyor belts”

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1 Supplementary Figures

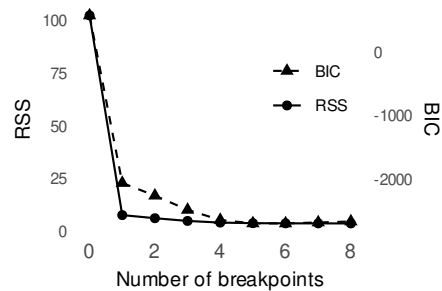


Figure S1. BIC and RSS for various segmentations. A minimum of the BIC corresponds to the preferred segmentation. Data and model assumption as described in Sect. 5.1, but without seasonal covariates. The resulting model and break points are shown in fig. S2.

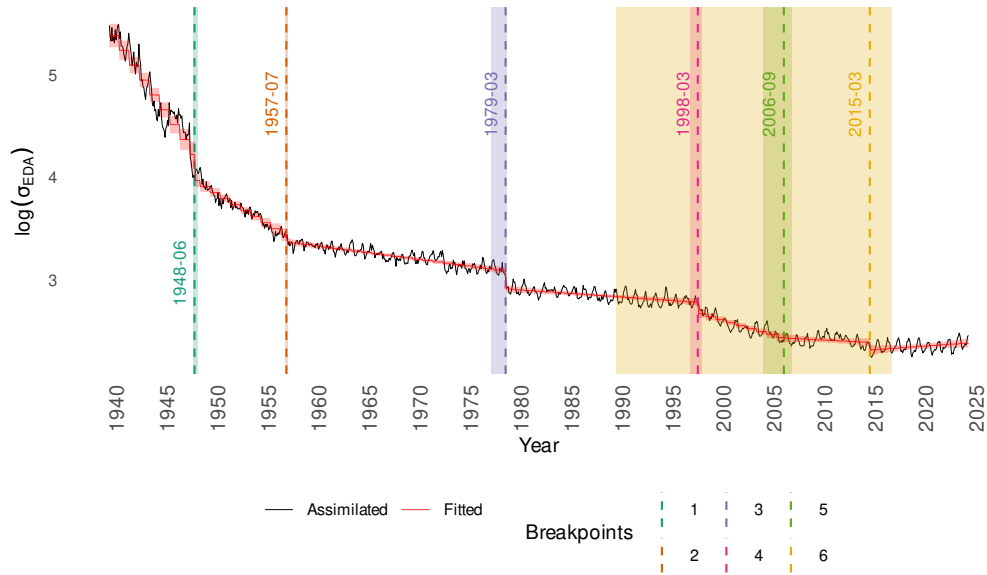


Figure S2. Monthly and spatially averaged logarithmic EDA ensemble spread of geopotential at 500 hPa assimilated (black line) and fitted with 95% confidence intervals (red line and shading). Identified change points annotated with the respective months (vertical dashed lines). Shading around change points indicate 95% confidence intervals. In contrast to fig. 1 in the paper, no seasonal cycle is assumed in the breakpoint identification or fit. The overlapping confidence intervals are consistent, since break point location uncertainty is estimated holding other break points constant.

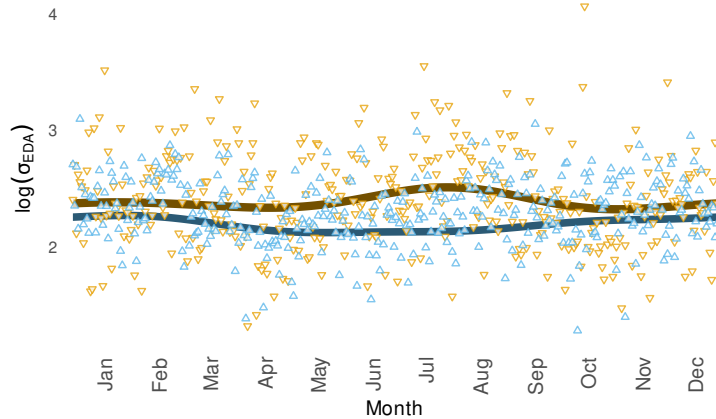


Figure S3. Logarithmic EDA ensemble spread of daily geopotential on 500 hPa assimilated (triangles) and 95% confidence intervals for the mean estimates (shadings) for the year 2024. The blue (orange) triangles and shading corresponds to the grid point indicated by an upward (downward) triangle in figure 3.